Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of:	)	
	)	
Digital Output Protection Technology	)	MB Docket 04-61
And Recording Method Certifications	)	
	)	
High Bandwidth Digital Content	)	
Protection	)	

REPLY OF DIGITAL CONTENT PROTECTION, LLC SUPPORTING CERTIFICATION OF HDCP

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SUMMARY

In this submission, the Digital Content Protection, LLC, responds to comments from the Motion Picture Association of America ("MPAA"), Philips North America Electronics Corporation ("Philips") and the American Antitrust Institute ("AAI") and requests that the Federal Communications Commission ("FCC" or "Commission") approve DCP's High bandwidth Digital Content Protection ("HDCP") as an approved secure digital output protection technology.

MPAA's comments endorse HDCP and seek a minor clarifications with respect to a few points. DCP does not disagree with the substance of any of MPAA's points, and has offered either further explanations or further actions to respond specifically to each item.

DCP responds to Philips and AAI challenges by setting forth a number of reasons why the Commission should here find that HDCP's licensing are"reasonable and non-discriminatory." First, the Commission has already found HDCP to be licensed on this basis, and nothing Philips and AAI have alleged is fundamentally different from the challenges that the Commission evaluated the first time. Second, the license provisions that Philips and AAI particularly focus on – the non-assert and change provisions – are actually normal in the content protection arena, have none of the anti-competitive effects alleged by the challengers, and, indeed, have pro-competitive effects in that they enable the growth of the market for products that allow consumers to enjoy new digital content. Third, the path proposed by Philips and AAI would require rejection of the major content protection systems actually deployed in the market – likely to cause a considerable slow-

down in the DTV transition – and would require the Commission to engage in government regulation of private contracts on an unprecedented scale.

INTRODUCTION

This docket is one of a series that the Federal Communications Commission ("FCC" or "Commission") has established to evaluate technologies certified to be compliant with the requirements in the Commission's broadcast flag rules. The purpose of the broadcast flag rules is to facilitate the DTV transition by requiring terrestrial digital broadcast demodulators to detect and respond to the broadcast flag so that terrestrial digital broadcast content is reasonably protected against indiscriminate redistribution, thereby encouraging content providers to make high value content available in digital, high definition for free over-the-air broadcast.[1] In order for this purpose to be fulfilled, the Commission has established compliance and robustness rules that, among other things, enable a broad range of Robust Methods and high definition analog outputs that do not require a technology license from any third party and allow manufacturers to design and deploy, subject to approval by the Commission, their own proprietary systems that are not available for license by other parties.

The Commission has also concluded that it is important that manufacturers be able to use technologies available by license in the open market to both meet the content protection requirements and enhance consumer flexibility and choice with respect to the ways they configure their own home networks and enjoy such content. Indeed, DCP

[1] *In the Matter of Digital Broadcast Content Protection,* MB Docket No. 02-230, 18 FCC Rcd 23550, ¶ 4 (2003).

believes one of the Commission's purposes in these certification proceedings is to make sure that consumers may use for terrestrial digital broadcast content the protection technologies in millions of devices that consumers are in fact already buying and using in their home entertainment network to protect high value content like DVD Video and other pay services. The Commission, by enabling the installed base of existing technologies already in use for these other purposes, will advance the DTV transition and enhance the value of the devices currently shipping and already in the hands of consumers excited about digital content.

In this submission, DCP responds to certain points made in the comments submitted by the Motion Picture Association of America and its member studios ("MPAA") and to the oppositions filed by Philips Electronics of North America Corporation ("Philips") and the American Antitrust Institute ("AAI").

Before getting into the specific responses, DCP would like to make a few preliminary points.

- First, the Commission has already found that the HDCP license terms and conditions are acceptable for use in the context of a Commission-approved content protection regime. In the "plug and play" proceedings, the inclusion of HDCP as an approved technology for incorporation into digital televisions and other devices was approved by the Commission over objections similar to those raised by Philips.[2]

[2] See *Compatibility Between Cable Systems and Consumer Electronics Equipment,* FCC 03-225, ¶ 25 (Oct. 9, 2003) (hereinafter "Plug and Play Order")

In fact, the Commission has required MSOs to provide consumers set top boxes with DVI/HDMI outputs, and HDCP is the only technology currently approved to protect those outputs.

- Second, because HDCP is an approved output under the PHILA and DFAST license agreement in the cable compatibility context (both the Commission's plug and play proceedings and the private cable-manufacturer context) and the CSS License Agreement for DVD Video content, HDCP has already been and is being incorporated into many consumer products in the new digital home entertainment environment.

- Third, failure to approve HDCP to protect broadcast flag content in this same home entertainment environment would either strand many consumers – i.e., would result in those consumers having no way of getting the full quality digital broadcast content to their current displays – or cause unnecessary additional cost as products are redesigned and deployed with additional technologies.

RESPONSES TO COMMENTS AND OBJECTIONS

I. Response to MPAA Comments

A. Upstream Controls over HDCP Functions

As DCP understands this point made in MPAA's comments, the DCP initial certification filing actually proposes a solution to the problem described by MPAA. The solution is for the FCC to adopt the "associated obligations" approach suggested in the

report of the Broadcast Protection Discussion Group ("BPDG"). DCP submitted a proposed statement of associated obligations with respect to HDCP technology, and DCP suggests that the Commission consider adopting this approach to address the MPAA's concerns.

B. Obligations on Content Providers, Broadcasters, Consumers and Others

MPAA posits a situation in which insertion of the broadcast flag in broadcast content triggers a response in a particular product which itself then causes that product to use HDCP technology when the consumer desires to transmit the content from that product to a display in order to view the content. MPAA is apparently concerned that this sequence could permit DCP to assert intellectual property rights against content and broadcast participants in the digital broadcast chain based on the unilateral decision of an HDCP licensee to include HDCP functionality in its broadcast flag enabled TV offering, and/or based on the unilateral decision of a consumer to purchase and use a licensed HDCP device. DCP believes that under well-accepted principles of licensing law applied to these facts, the licenses extended under the DCP agreements would benefit content or broadcast participants to the extent a consumer uses an HDCP implementation provided by an HDCP licensee.

C. Application of HDCP's License to DCP's Founder

DCP hereby confirms that its Founder, Intel Corporation, is a licensee of DCP's technology, subject to the same compliance and robustness rules as other licensees.

D. Means of Handling Revocation Lists

DCP recognizes that MPAA has identified an issue that will require multi-industry work and cooperation, potentially leading to a standardization of the outcome. To the extent that such work and cooperation develop, DCP agrees that it will participate in good faith in such an effort and will carefully evaluate the outcome of such an effort with the understanding that, if the outcome is standardized, it would expect to incorporate appropriate provisions into its licensing and related documents.

II. Responses to Opposition Filings by Philips and AAI

A. Overview

DCP understands that the Commission has concluded it will review the license agreements associated with certified technologies as a condition of final approval, and DCP will therefore address, below, the arguments raised by Philips and AAI. As a preface to that discussion, DCP and its Founder, Intel, have a few observations concerning Philips' comments and activities.

First, viewed from Intel's perspective, Philips' statements and actions seem to be both vindictive and self-serving. They are vindictive in that Philips has opposed each and every technology that Intel is associated with – HDCP, DTCP, and CPRM. Intel has spent years and millions of dollars developing and promoting these technologies, each of which was developed, designed, and offered for the purpose of enabling new digital experiences for consumers. Even while spending its resources in activities associated with these technologies, Intel has also championed an open architecture where multiple technology offerings can not only co-exist, but are welcome, maintaining its position

even in the face of Philips' continuous, ongoing, and open opposition and public objections, some of which include both subtle and overt accusation of improper conduct. Nevertheless, in its statements to this Commission, Intel has encouraged the Commission to approve many technologies in both the broadcast flag and the plug and play proceedings and has specifically not objected to the Vidi technology submission.

Philips' actions have been self-serving in that its own technology offering would be a beneficiary whether the Commission adopted the open architecture approach advocated by Intel or the restrictive, regulatory approach put forward by Philips and its ally, AAI. Viewed from this vantage point, it would be ironic, indeed, if the Commission rejected the Intel-supported technologies as a result of Philips' objections.

From a policy perspective – and apart from the fact that DCP's licenses should be found to pass muster as "reasonable and non-discriminatory" – there are several reasons why the Commission should think very seriously before choosing to go down the path promoted by Philips.

First, doing so would almost certainly undermine the ability of the market to deploy technologies to fulfill the broadcast flag regulations. The technologies with which Intel is associated are already widely licensed, implemented, and deployed in the marketplace and in consumer homes, whereas DCP understands that Philips' own technology is at this point only words on paper.[3]

[3] Indeed, it is not clear that the technology has been endorsed by the +R/+RW alliance itself.

Second, Philips is asking the Commission to do a truly extraordinary regulatory act – to ignore the fact the DCP and two other licensing entities with which Intel is associated are contractually bound to the scores of licenses that have already been signed. These entities, including DCP, are not in a legal position to simply change the agreements even if they wanted to, not only as a matter of contract, but also as a matter of fairness as scores of companies have made huge investments in reliance on the very terms and conditions to which Philips is objecting.

In effect, this would put the Commission in the position of having forced DCP and the other entities to choose between three highly undesirable options – violate all of its existing license agreements in an effort to abide by the Commission-dictated compulsory license terms and conditions, simply abandon the existing approved uses of HDCP in favor of the more limited broadcast flag application, or choose to deprive HDCP-enabled devices of the ability to be used for the enjoyment of over-the-air broadcast content. In the first case, Philips asks that the United States Government, for the benefit of Philips, in effect "take" Intel's intellectual property by dictating new compulsory license terms and conditions, thereby rejecting the terms and conditions that Intel has determined are the reasonable and non-discriminatory terms on which its intellectual property is best offered and, further, that the United States Government interfere directly with scores of private contracts by rewriting existing license agreements that have been relied on across industries to make huge investments toward the advance of Digital Television. In the second case, either non-broadcast content would be forced to use unprotected connections, thereby harming content protection for non-broadcast content or, if content owners refused to allow use of unprotected connections, consumers

would suffer from the lack of deployed protected output options. In the third case, the government action will mean that manufacturers and, most importantly, consumers of millions of HDCP devices that use HDCP functionality for other purposes (such as DVD Video, Cable TV) will be unable to use that same HDCP functionality to enjoy digital *broadcast* television in their home entertainment network. Any of these three results would be simply and patently contrary to goal of advancing the digital television transition, blatantly anti-competitive, and contrary to fundamental principles of fair play.

Third, adopting Philips' approach to these issues would put the Commission in the position of having strongly discouraged companies, like Intel, from further involvement in market-enabling approaches to content protection technologies and their licensing. Many companies value and use their patents for strategic purposes, and not just for the generation of revenue at the margin, and, accordingly, give up a great deal when they engage in low cost "necessary claims" types of licenses like the HDCP license. These companies, including Intel, rely on their patent portfolios to defend their core businesses against patent infringement claims. When, for example, Intel gives a "necessary claims"[4] patent license to an HDCP licensee, Intel not only enables the use of a valuable technology for the benefit of manufacturers, consumers, and content providers, it also gives up the right to use these same patent claims in the defense of its core business against claims brought by HDCP licensees outside the scope of the HDCP license non-assert.

[4] As defined in the HDCP License Agreement. This discussion is by way of example and is not an admission with respect to any particular claim.

Until now, Intel has been able to rationalize this strategic impact because the HDCP license requires all licensees to give up similar rights through the non-assertion clause (recognizing that licensees, as non-inventors of the system, are in all likelihood giving up far less than Intel does) and Intel believes that HDCP and the other supported technologies are enabling the growth of significant exciting new digital markets, including in the broadcast television context. To the extent that this balance is upset as it would be under the Philips' proposals, companies like Intel will be forced to seriously reconsider support of these efforts, in order to protect strategic interests. Intel does not believe that this intellectual property that it gives and/or enables is reasonable from a licensor's perspective unless its licensees make similar commitments to the development and promotion of the underlying system, which is open for all to participate in on very reasonable and non-discriminatory terms.

It is in this general context that DCP suggested in its certification filing that the Commission should leave license provisions unrelated to the protection of content to the participants in the market place. Unlike, for example, the ATSC standard that the Commission adopted pursuant to a request by Philips (among others), no particular content protection technology is required to receive, display or record digital broadcast television. Robust methods and the permitted use of existing high definition analog outputs make all of these additional technologies optional choices both for device manufacturers and consumers.

In any event, as outlined in DCP's original certification filing, and as summarized again below, the HDCP License agreement clearly satisfies the Commissions'

requirements, including that HDCP is offered on a "reasonable and non-discriminatory basis."

B. Specific Comments

1. Overall License Approach

As an overall matter with regard to the HDCP license terms and conditions, the Commission's previous statements are clear. First, the Commission found that "the adopter agreements for these technologies [DVI, HDMI, and HDCP] are freely offered on non-discriminatory terms."[5] Second, the Commission found that if these technologies are not being licensed on reasonable and nondiscriminatory terms, or are unavailable due to outstanding patent claims, the Commission would consider any complaints pursuant to its "previous patent policy."[6]

With regard to Philips' criticisms of particular points, DCP first notes that the license terms and conditions must be viewed as a whole, rather than in distorted hypotheticals not reflective of the context of the particular provisions. As discussed in some detail in the introductory comments to this analysis, there are a number of factors and perspectives unique to particular licensors that they must each consider when developing and offering a particular license agreement, which means almost by definition that it is impossible to offer a license that is acceptable in every respect both to licensors and the global universe of potential licensees. The HDCP license represents a

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[5] Plug and Play Order ¶ 25.

[6] In identifying its patent policy, the Commission cites the 1991 Notice of Rule Making as authority for its previous patent policy, which itself cites to the Revised Patent Procedures of 1961.

compromise of competing interests that include DCP and its founder Intel, content companies, a myriad of implementers, and consumers, the ultimate customers and users of the technology. Viewed in that light and taken as a whole, DCP respectfully submits that the Commission has no reason to revisit the conclusion it already reached as noted above.

2. Non-assert Provisions

The particular non-assert provisions criticized by Philips are, themselves, reasonable and non-discriminatory in this setting.[7]

First, DCP believes that content protection is not a feature for which consumers, or product manufacturers, will pay a premium, and content protection technologies must therefore be made available on terms that minimize direct cost and burdens on the product and that reduce the risk that unexpected costs will arise after the manufacturer chooses to adopt a particular system.[8] The non-assert clause is a significant means of providing the assurance to manufacturers that, at least with respect to all other participants in the system, the costs are known and fixed at the time of adoption. A

[7] Just to be clear, neither DCP nor Intel Corporation has any philosophical objection to other licensing structures, including but not limited to those that only require participating parties to license necessary claims on reasonable and non-discriminatory terms, and others that have no reciprocal obligations at all. These schemes are in fact widely deployed in many technology efforts in which Intel participates and/or is a licensor. Indeed, for many such efforts, simple "RAND" structures are both appropriate and desirable. However, there simply is no "one size fits all" definition of "reasonableness" because license terms and conditions are the product of a multitude of factors, and there is no way design a license that the entire world of potential adopters will all find "reasonable" based on their own subjective desires.

[8] Indeed, Philips has made this very point in their many argument opposing the change management provisions in the HDCP and other license provisions.

requirement only that licensees offer their necessary claims to other licensees on "reasonable and non-discriminatory" terms and conditions does not meet this requirement[9] and, as discussed in the introductory remarks to this section, discriminates against the technology licensor who is pursuing a market segment enabling strategy.

Second, the scope of this particular non-assert is carefully limited to claims that are necessary to implement HDCP as disclosed with particularity in the HDCP Specification, a scope clearly designed to limit the impact on any licensee's intellectual property. Claims that, for example, support particularly efficient implementation of HDCP are not likely to be covered within the scope of the "necessary claims" covered by the provision.[10] Claims that may also read on different technologies are not subject to the non-assert with respect to those different, even competing, technologies. In short, innovation that improves performance or reduces burdens in implementation of HDCP are not suppressed, nor are innovations in the form of different technologies. The limitations on the coverage of the non-assert are clear and Philips' allegation that the non-

[9] DCP has no objection to Philips or any other company pursuing a different licensing approach, but is somewhat skeptical that the Vidi license can serve as a "model" for all other technologies. Philips has now offered a single content protection technology that all of its +R/+RW licensees are now required to use if they wish to be able to offer products that can make copies onto those forms of media. As the co-proprietor of the format, Philips has now demonstrated that it effectively controls the content protection technology or technologies that will be available for the format, the licensing terms and conditions for that content protection technology, and the licensing terms and conditions on which the format itself is licensed.

[10] This point is particularly misunderstood in the AAI filing, where the allegation is made that "adopters are effectively dissuaded from developing innovations that substitute for necessary claims." (AAI's Opposition at 7). This is precisely what is not covered under a "necessary claims" approach to licensing or non-assertion clauses.

assert will "suppress competition for innovation and technology"[11] is simply neither true nor credible.

Third, Philips' criticism of the fact that Intel's claims are licensed on the basis of "necessary claims" and not a list of specific patents and claims is both unfounded and odd, to say the least, in light of the fact that its own technology submission to the FCC, Vidi, relies on precisely the same approach and nowhere lists patents supporting Vidi. In fact, DCP's review of the various certification submission reveals that only one submission to the Commission in this process – that of JVC, which involves a format-based protection system, rather than an independent content protection technology – actually lists any specific patents. As this illustrates, the "necessary claims" approach to licensing is a well accepted approach in the content protection arena. This approach is also widely used outside of the content protection context as well, including in a host of industry consortia and standards bodies. In fact, this approach is very "adopter-friendly" in that adopters are assured that they are licensing only those claims that are necessary (and are not being forced to license claims that are not necessary).[12]

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[11] Philips Opposition to HDCP at 17.

[12] Although Intel has no objection to other forms of patent licensing, the approach proposed by Philips has its own risks and problems. With respect to analyses of what patent claims are to be "necessary" in a given license context, an expert is not able to render a legal determination as to what actually is or is not in fact a necessary claim, or whether a patent is or is not valid, so the result of such an analysis has no necessary legal significance in and of itself. In fact, such an analysis may actually prejudice licensees by giving them licenses to things that were things that may later be determined not to be necessary by an authority of competent jurisdiction. For example, DCP understands that Philips was involved in a proceeding where the tribunal found patent misuse for requiring licensees to license certain specifically listed patent claims as "necessary" when the tribunal found that some of those claims were not necessary, notwithstanding the fact that an expert analyst had been retained and his findings relied on in determining which patent

Fourth, Philips' claim that the non-assert can be modified due to changes that DCP may make in the Specification is wildly overstated. The HDCP change provisions, cited by Philips in its submission, significantly and materially limit changes that may be made to the HDCP Specification. Changes must be "backwards compatible" (i.e., old products must work with the new technology and vice versa) and must not materially increase the cost or complexity of implementations of HDCP. This means that the technology that is disclosed to the adopter at the time the license is signed is fundamentally the same as any technology that DCP could "create" as a result of permitted changes.

Finally, with respect to HDCP license fees, DCP notes that these are set with an eye toward cost recovery and long term viability of DCP as a licensing authority. Administrative fees are in fact just that, and increases in such fees are specifically restrained.[13] Key fees are directly related to the actual costs associated with the operation of a secure key generation facility. It is ironic that Philips challenges the reasonableness of these fees at the same time it has asked the Commission to allow all adopters to extract "reasonable" royalties from other adopters where "reasonableness" is left to the discretion of the adopter.

In summary, the HDCP non-assert is reasonable and non-discriminatory – and may even be described as customary in this setting – and Philips has offered no evidence

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claims would be mandatory (as "necessary") in the license. See *In the Matter of Certain Recordable Compact Discs and Rewritable Compact Discs*, US ITC Inv. No. 337-TA-474 (2004).

[13] See HDCP Certification, Exh. 1 § 4.2.

beyond its own specific stated desire to be given the opportunity to both benefit from the low-cost license *and* impose royalties on other adopters (assuming for the sake of argument, but in no way acknowledging, that Philips may have intellectual property relevant to HDCP). In this context, there is nothing about the HDCP non-assert that should lead the Commission to change its prior evaluation of the HDCP licenses or to cause the Commission not to approve HDCP in this proceeding.

3. Change Management

With regard to Philips' criticism of the "changes" provision of the HDCP license, DCP refers the Commission to the points made above about the significant limitations on DCP's practical ability to make changes. Moreover, with respect to Philips' allegation that changes could be made that would make HDCP somehow inconsistent with the Commission's broadcast flag rules, DCP offers two responses. First, DCP will not knowingly make changes that would render HDCP content protection incompatible with the Commission's broadcast flag compliance and robustness rules. Second, the Commission has available to it remedies, far short of dictating what a private licensor may do vis a vis its own technology, to meet Philips' concerns. For example, the Commission can simply require that any changes materially affecting the regime's compliance with the broadcast flag rules can be the basis for removal of a technology from the list of approved technologies.

With regard to the proposal that HDCP be approved solely with regard to the "media" for which it has been implemented at this time, DCP suggests that this is not a good policy position for the Commission to take. Rather, DCP believes that the only

reason Philips has made this request is to bolster its own HDMI licensing program, which frankly relies on the protection afforded HDMI by HDCP. Without HDCP protection, HDMI would not be an approved output in, for example, cable plug and play, and would not become an approved output in these proceedings absent some other content protection scheme. In this context, limiting the application of HDCP to interfaces in which Philips has a proprietary licensing interest is anti-competitive and contrary to the fundamental principle that HDCP is HDCP regardless of the underlying transport.

III. Policy Bases for DCP's Positions

DCP and Intel (both directly and, for Intel, as part of DTLA and 4C) have tried to be constructive throughout the broadcast flag process, both in the BPDG discussions and in the Commission's proceedings on these issues. We have worked in good faith with many competing interests to find consensus-based solutions that are reflective of broad discussions among numerous industry participants. Our fundamental principle, however, is that the role of government in relation to regulating the implementation of the broadcast flag in various products is, in all instances, a very narrow one – an exception to the general rule that content protection solutions should be developed and deployed through private voluntary arrangements in the marketplace.

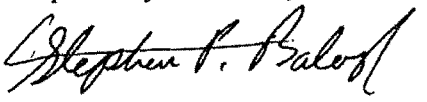
Similarly, those participating in the consensus-building process did not reasonably imagine that a narrow requirement on demodulators to detect and respond to the broadcast flag would potentially result in the FCC adopting compulsory licensing requirements with respect to voluntary, optional, and corollary technologies like HDCP, that have been developed in the market-based system and are already deployed for a host

of reasons unrelated to the broadcast flag. In fact, one of the primary reasons for this constructive engagement with respect to the broadcast flag approach is that a belief that the intellectual property implications associated with a flag-based approach were relatively small, particularly in light of the open approval process for a variety of technologies including both those that are wholly proprietary and those that are licensed in the market. Our constructive engagement was premised on the reasonable expectation that the Commission would defer issues unrelated to the specific content protection requirements to the market. If this reasonable expectation turns out to have been an incorrect understanding, it will have a direct and material effect on the decision by DCP and Intel to support other initiatives that may seek a narrow role for government, including, for example, approaches to the analog hole problem.

The approach advocated by Philips, however, is an extremely dangerous slippery slope, one that is steep and where the landing is full of danger. We hope that the Commission adopts an analysis that sends a strong message that it is not going down the path proposed by Philips, including rejecting compulsory licensing of these technologies as unreasonable.

For all the foregoing reasons, as well as the reasons contained in the DCP Certification filed on March 1, 2004, DCP respectfully requests that the FCC approve HDCP as an approved digital content protection recording method pursuant to the "Broadcast Flag" regulations, 47 CFR §§ 73.9000-9008. Please contact the counsel listed below with any additional questions you may have.

Respectfully submitted,



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